

REMARKS

Entry of the above amendments and below remarks, made in response to the final office action of June 30, 2005, is respectfully requested. Claims 3, 15, 27, 41, 51, 60 and 71 are cancelled by this amendment. Claims 1,2, 4-14, 16-26, 28-40, 42-50, 52-59, 61-69 and 72-76 are currently pending.

Rejections under 35 U.S.C. §103

Claims 1, 5-13, 17-25, 29-37, 39, 43-46, 48-49, 53-58, 62-67 and 72-74 were rejected under 35 U.S.C. §103(a) as being unpatentable over Goguen in view of Perlman (U.S. Patent Application 5,870,386).

Goguen:

Goguen describes, at column 6, lines 52-56 a system for "...dynamically adjusting a bandwidth of a Multi-protocol Label Switching (MPLS) system traffic engineering (TE) tunnel based on actual traffic flow through the tunnel. Generally, the network devices using the MPLS system keep track of byte counts through the TE tunnel. Knowledge of the actual traffic flow through a tunnel enables dynamic adjustment of the bandwidth, which in turn allows for allocation of sufficient resources to service the traffic. In one instance, excess bandwidth is reallocated elsewhere by the network devices..."

Goguen describes, at column 7, lines 65- column 8 lines 6:

"... An improved MPLS system determines the actual traffic that flows through the configured TE tunnels and dynamically re-configures the tunnel bandwidth to reflect the traffic flow. The TE module 710 notified of the change initiates a path setup procedure to find a path that is able to accommodate the

adjusted bandwidth. If the calculated path is the same as the current path, the setup procedure may terminate and the current path is used with the new adjusted bandwidth. Alternatively, the setup procedure is initiated as described with respect to FIG. 2, where the newly established tunnel that meets the adjusted bandwidth and other constraints in the configuration table, replaces the old tunnel and the old tunnel is torn down. The actual traffic may be determined by accessing the byte counters 772 kept within the physical link management module 770..."

Thus Goguen describes a technique which involves reconfiguring links of a tunnel to meet the bandwidth requirements of the traffic that travels through the tunnel.

Perlman:

Perlman describes, in the abstract:

"...A technique for logically connecting local area networks (LANs) that may be separated by wide area networks containing routers and other network components. A logical link is formed between two bridge-like devices called tunnelers, such that, once a tunnel has been established between two LANs, other devices on the LANs can communicate as if the tunnel were a bridge ... A tunnel is established after a successful exchange of messages between two tunnelers, and then traffic may be forwarded through the tunnel in a transparent manner. The tunneling mechanism permits messages to be forwarded between LANs separated by a wide area network containing routers. Moreover, the mechanism permits filtering of traffic, such that only selected types of traffic, or messages for selected destinations or from selected sources, are forwarded through tunnels...."

Perlman further states, at column 6, lines 27-31:

"... The tunnel may be used for only selected protocols, or for all types of traffic, or for traffic involving only selected destinations or sources, all at the option of the network manager..."

Applicants submit that although Perlman teaches that the tunnel may be used for traffic involving only selected destinations, no teaching or suggestion is found in

Perlman, Goguen, or the combination thereof, of the 'selectively routing only information destined for serviced destinations ...' wherein the service destinations are destinations defined to be a predetermined number of hops from said tail end device, as recited in each of applicant's independent claims.

Applicants note that limitations of dependent claims 3, 15, 27, 41, 51, 60 and 71 have been added to respective associated independent claims 1, 13, 25, 39, 49, 58 and 69, and the dependent claims 3, 15, 27, 41, 51, 60 and 71 have been cancelled. As such, the rejection under 35 U.S.C. §103(a) with regard to the combination of Goguen and Perlman is moot, as the Examiner admits, at page 12 of the office action, that 'serviced destinations comprising destinations within a predetermined number of router hops of said tail-end device' is missing from the combination.

In the office action, claims 2,3, 14,15, 26,27, 40,41, 50,51, 59,60, 70 and 71 were rejected under 35 U.S.C. §103(a) as being unpatentable over Goguen in view of Perlman and further in view of Chuah. Applicant's will address the issue of the combination of Goguen, Perlman and Chuah against independent claims 1, 13, 25, 39, 49, 58 and 69, as the independent claims now include the limitations previously rejected under this combination of references.

Chuah:

Chuah describes, in the abstract, an "apparatus for transferring packet data incorporates a "hand-off" feature that allows the transfer of an existing PPP connection

from one packet server to another packet server. Such a hand-off control message or call continue transaction can be initiated by any of the servers involved in the transactions..."

The Examiner states, at page 9 of the Office Action "... Chuah ... discloses... tunnels that can increase or decrease their number of hops based on congestion in the tunnel..." Thus Chuah does not overcome the deficiencies of Goguen and Perlman described above.

Accordingly, for at least the reason that the combination of references neither disclose nor suggest the limitations of the independent claims, including the limitation of "...determining a number of said destinations within a predetermined number of hops of said tail-end device to identify serviced destinations; and *selectively routing information only information destined for the serviced destinations..*" independent claims 1, 13, 25, 39, 49, 58 and 69 are patentably distinct over the combination of Goguen, Perlman and Chuah. For at least this reason, it is respectfully requested that the rejection be withdrawn. Dependent claims 2, 4-12, 14, 16-24, 26, 28-38, 40, 42-48, 50, 52-57, 59, 61-68, 70 and 72-76 serve to add further patentable limitations to their parent independent claims, but are allowable for at least the same reasons as the parent independent claims.

Claims 38 and 68:

Claims 38 and 68 were rejected under 35 U.S.C. §103(a) as being unpatentable over Goguen in view of Goebel. The Examiner relies on Goebel as supporting the limitation of a computer program being embodied as a data signal. Goebel describes a method of allocating registers when compiling code. Although Applicants disagree that the combination is a proper one, given the disparate nature of the references, Applicants

note that the combination of Goebel with Goguen fails to overcome any of the inadequacies pointed out above with regard to Goguen. For at least the reason that the combination of references fail to teach or describe the limitations of the parent independent claims, claims 38 and 68 are patentable over the references, and the rejection should be withdrawn.

Claims 47 and 75:

Claims 47 and 75 were rejected under 35 U.S.C. §103(a) as being unpatentable over Goguen in view of Swallow. The Examiner relies on Swallow as supporting the limitation of removing the label from the information and forwarding said information to said destinations based upon destination address information. Swallow describes, in the abstract, "...a network communications tunnel is established by assigning a unique label to each communications link between adjacent nodes in a pre-defined network path. A node's unique label is used to forward a data packet to the adjacent node in the pre-defined path. The unique labels for all the nodes in the pre-defined path are stored by each node in the tunnel..." As noted above, Applicants note that the combination of Goebel with Swallow fails to overcome any of the inadequacies pointed out above with regard to Goguen, namely Swallow neither describes nor suggests selective tunneling based on a relationship between the address of the destination and the tail-end of the tunnel. For at least the reason that the combination of references fail to teach or describe the limitations of the parent independent claims, claims 47 and 75 are patentable over the references, and the rejection should be withdrawn.

Conclusion

Applicants have made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Lindsay McGuinness, Applicants' Attorney at 978-264-6664 so that such issues may be resolved as expeditiously as possible.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,

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Date

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